

We Claim:

1. An aneurysm buttressing arrangement for covering an aneurysm opening in an intracranial aneurysm, for temporary placement thereadjacent, to prevent escape of embolic agents from that aneurysm, said arrangement comprising:

an elongated delivery wire having a proximal end and a distal end;

an expandable scaffold arranged on said distal end of said delivery wire, said scaffold comprising a generally "U" shaped expandable arrangement of fluid permeable material secured to said delivery wire.

2. The aneurysm buttressing arrangement as recited in claim 1, wherein said expandable scaffold has a bulbous distal end and a pair of narrower proximal ends which narrower proximal ends are attached to said delivery wire.

3. The aneurysm buttressing arrangement as recited in claim 1, wherein said scaffold is comprised of a wire mesh having a circular cross-section.
4. The aneurysm buttressing arrangement as recited in claim 3, wherein said bulbous end has a higher density of wires arranged thereat than the wire density of said wires at said proximal ends of said scaffold.
5. The aneurysm buttressing arrangement as recited in claim 3, wherein said fluid permeable scaffold of wires has a central opening.
6. The aneurysm buttressing arrangement as recited in claim 5, wherein said central opening in said scaffold of wires is variable in size.
7. The aneurysm buttressing arrangement as recited in claim 1, wherein said scaffold is dis-attachable from said delivery wire.
8. The aneurysm buttressing arrangement as recited in claim 1, wherein said scaffold is delivered to a target site by a micro catheter having a distal end.

9. The aneurysm buttressing arrangement as recited in claim 8, wherein said delivery wire is hollow.
10. The aneurysm buttressing arrangement as recited in claim 9, wherein a further micro delivery catheter is movably arranged in said hollow delivery wire.
11. The aneurysm buttressing arrangement as recited in claim 10, wherein said further micro delivery wire is arranged to supply embolitics to said aneurysm.
12. The aneurysm buttressing arrangement as recited in claim 1, wherein said aneurysm is disposed on a bifurcated blood vessel for engaging said scaffold.
13. The aneurysm buttressing arrangement as recited in claim 1, wherein said delivery wire has a recess on its distal end for control of a scaffold thereat.

14. A method of buttressing an intracranial aneurysm in a wall of a vessel comprising:

transluminally positioning a compressed, generally "U" shaped expandable scaffold at a distal end of a delivery catheter;

introducing said distal end of said delivery catheter adjacent a neck of an aneurysm in said wall of said vessel;

moving said expandable scaffold distally out of said delivery catheter and against said neck of said aneurysm; and

expanding said scaffold into a generally flexible, fluid passable "U"- shaped member.

15. The method as recited in claim 14, including:

forming a central opening in said generally "U" - shaped scaffold.

16. The method as recited in claim 15, including:

flowing blood in said vessel through said central opening of said scaffold to prevent injury to a patient with said aneurysm.

17.The method as recited in claim 14, including:

introducing a further delivery catheter into said vessel for introduction of embolic material into said aneurysm.

18.The method as recited in claim 14, including:

attaching a proximal end of said scaffold to a distal end of a delivery wire movably disposed in said delivery catheter.

19.The method as recited in claim 18, including:

dis-attaching said scaffold from said delivery wire upon introduction of said scaffold against said aneurysm.

20.The method as recited in claim 14, including:

attaching a pair of proximal ends of said scaffold to a distal end of a pair of delivery wires movably disposed in said delivery catheter.

21.The method as recited in claim 14, wherein said scaffold comprises a

mesh of flexible target conformable wires.

22. A method of buttressing an intracranial aneurysm in a wall of a vessel comprising:

placing a scaffold adjacent said aneurysm;

creating a central looped opening in said scaffold;

directing blood through said central opening in said scaffold;

and

introducing a embolic material through said opening and into said aneurysm.

23. The method as recited in claim 22, including:

moving said scaffold into a delivery catheter;

displacing said scaffold from said delivery catheter;

expanding said scaffold from a compressed orientation into an expanded U-shaped configuration into a buttressing arrangement against said aneurysm, said scaffold having a bulbous distal end and a pair of narrower proximal ends.

24. The method as recited in claim 23, including:

attaching said proximal ends of said scaffold to a distal end of a delivery wire.

25. The method as recited in claim 23, including:

moving said delivery wire relative to said delivery catheter to effect size and shape of said scaffold.

26. The method as recited in claim 23, including:

wrapping said scaffold about the distal end of said delivery wire to permit snug insertion of said scaffold into said delivery catheter.

27. The method as recited in claim 26, including:

arranging a radially inwardly directed lip on a distalmost end of said delivery catheter; and

pushing said scaffold into a flared opening at a proximal end of said delivery catheter so as to load said delivery catheter with said scaffold.

28.The method as recited in claim 23, including:

fabricating said scaffold of a plurality of wound wires to effect
a generally tubular loop of wire mesh; and

weaving a higher density of wound wires on a distal end
portion of said scaffold and a lower density of wound wires on a
proximal end of said scaffold, said proximal end of said scaffold
comprising a joining of each end of said wire mesh to form said
loop.

29.The method as recited in claim 23, including:

attaching a delivery wire on each end of said wire mesh on said
proximal end of said scaffold to increase control of said scaffold.

30.The method as recited in claim 29, including:

moving one of said delivery wires with respect to another of
said delivery wires to effect a deployed shape of said wire mesh
relative to said aneurysm.

31. The method as recited in claim 23, including:

separating said scaffold from said delivery wire after deployment of said scaffold at said aneurysm.

32. The method as recited in claim 23, wherein said scaffold has at least a partial coating of film thereon.

33. The method as recited in claim 23, wherein said scaffold is comprised of a balloon.